## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents P.O. Box 1450

Alexandria, VA 22313-1450

Re: Inventor(s):

Howard Li, L. Luo, I. Iliopoulos and M. Armacost

Title:

INTEGRATED EQUIPMENT SET FOR FORMING A LOW K DIELECTRIC INTERCONNECT ON A

**SUBSTRATE** 

Serial No.:

10/759,801

Filed:

January 16, 2004

Transmitted herewith is:

X Information Disclosure Statement

X PTO Form 1449 with thirteen cited references

X Return Postcards

| FEE CALCULATION           |                 |                            |                 |           |        |  |  |  |
|---------------------------|-----------------|----------------------------|-----------------|-----------|--------|--|--|--|
| Fee Items                 | Claims<br>Filed | Included With<br>Basic Fee | Extra<br>Claims | Fee Rate  | Total  |  |  |  |
| Total Claims              | N/A             | - 20 =                     | -0-             | X \$18.00 | \$0.00 |  |  |  |
| Independent Claims        | N/A             | - 3 =                      | -0-             | X \$84.00 | \$0.00 |  |  |  |
| Basic Filing Fee \$740.00 |                 |                            |                 |           |        |  |  |  |
| TOTAL FEES                |                 |                            |                 |           | \$0.00 |  |  |  |

The Commissioner is hereby authorized to charge \$0.00 to Deposit Account No. 04-1696.

XX The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. **04-1696**. A duplicate copy of this transmittal is enclosed.

XX Please address all future correspondence to:

PATENT COUNSEL
APPLIED MATERIALS, INC.
Legal Affairs Department
P.O.BOX 450A

Santa Clara, CA. 95052

I hereby certify that this correspondence is being deposited with the United States Postal Service as express mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Express Mail Receipt No. \_EL975550624US

Date of Deposit:

Signature

Respectfully submitted,

Brian M. Dugan

Registration No. 41,720

(914) 332-9081



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

plicant(s) : Howard Li, et al.

Serial No. : 10/759,801

Filed: January 16, 2004

For :' INTEGRATED EQUIPMENT SET FOR FORMING A LOW K

DIELECTRIC INTERCONNECT ON A SUBSTRATE

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

## INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with 37 C.F.R. §§ 1.56 and 1.97, applicants wish to call the attention of the Examiner to the following references:

- U.S. Patent No. 5,408,450, Mozumder et al.
- U.S. Patent No. 6,004,706, Ausschnitt et al.
- U.S. Patent No. 6,213,848 B1, Campbell et al.
- U.S. Patent No. 6,148,239, Funk et al.
- U.S. Patent No. 6,304,999 B1, Toprac et al.
- U.S. Patent No. 6,405,144 B1, Toprac et al.
- U.S. Patent No. 6,408,220 B1, Nulman
- U.S. Patent No. 6,454,899 B1, Campbell et al.

- U.S. Patent No. 6,486,492 B1, Su
- U.S. Patent No. 6,546,306 B1, Bushman et al.
- U.S. Patent No. 6,587,744 B1, Stoddard et al.
- U.S. Patent No. 6,625,497 B2, Fairbairn et al.
- U.S. Patent No. 6,625,514 B1, Lensing

These references are also listed on the accompanying Information Disclosure Statement (Form PTO-1449).

Consideration of the foregoing in relation to this patent application is respectfully requested.

Respectfully Submitted,

Brian M. Dugan, Esq. Registration No. 41,720

Dugan & Dugan, PC

Attorneys for Applicants

(914)332-9081

Dated: February 17, 2004 Tarrytown, New York

| U.S. Department of Commerce, Patent and Trademark Office |                |                    |               | Docket No.:<br>6353/P1/DSM/LOW K/JW |                  |          | Serial No.:<br>10/759,801 |            |     |                                 |  |
|--|----------------|--------------------|---------------|-------------------------------------|------------------|----------|---------------------------|------------|-----|---------------------------------|--|
|  |                |                    |               |                                     |                  |          |                           |            |     | RELEVANT ART CITED BY APPLICANT |  |
| Comp. A. B. and  | - X X X .      | e several sheets i | f necessary)  |                                     | Howard L         | i, et al |                           |            |     |                                 |  |
| U.S. Patent Documents  *Examiner   Document Issue        |                |                    |               |                                     | Filing Date:     |          |                           | Group:     |     |                                 |  |
|  |                |                    |               |                                     | January 16, 2004 |          |                           |            |     |                                 |  |
| U.S.   | Patent D       | ocuments           |               |                                     |                  |          |                           |            |     |                                 |  |
| *Examiner<br>Initial                                     |                | Document<br>Number | Issue<br>Date | Name                                |                  | Class    |                           | ubclass    |     | Filing Date If Appropriate      |  |
|  | US-1 5,408,450 |                    | 04/18/95      | Mozumder et al.                     |                  |          |                           |            | * 1 |                                 |  |
|  | US-2           | 6,004,706          | 12/21/99      | Ausschnitt et al.                   |                  |          |                           |            |     |                                 |  |
|  | US-3           | 6,213,848 B1       | 04/10/01      | Campbell et al.                     |                  |          |                           |            |     |                                 |  |
|  | US-4           | 6,148,239          | 11/14/00      | Funk et al.                         |                  |          |                           |            |     | <u> </u>                        |  |
|  | US-5           | 6,304,999 B1       | 10/16/01      | Toprac et al.                       |                  |          |                           |            |     |                                 |  |
|  | US-6           | 6,405,144 B1       | 06/11/02      | Toprac et al.                       |                  |          |                           |            |     |                                 |  |
|  | US-7           | 6,408,220 B1       | 06/18/02      | Nulman                              |                  |          |                           |            |     |                                 |  |
|  | US-8           | 6,454,899 B1       | 09/24/02      | Campbell et al.                     |                  |          |                           |            |     |                                 |  |
|  | US-9           | 6,486,492 B1       | 11/26/02      | Su                                  |                  |          |                           |            |     |                                 |  |
|  | US-10          | 6,546,306 B1       | 04/08/03      | 04/08/03 Bushman et al.             |                  |          |                           | . <u>-</u> |     |                                 |  |
|  | US-11          | 6,587,744 B1       | 07/01/03      | Stoddard et al.                     |                  |          |                           |            |     |                                 |  |
| Fore   | ign Paten      | t Documents        |               |                                     |                  |          |                           |            | Ti  | ranslation                      |  |
|  |                | Document<br>Number | Date          | Count                               | ry               | Class    | Subo                      | class      | Yes | No                              |  |
|  | F-1            |                    |               |                                     |                  |          |                           |            |     |                                 |  |
|  | F-2            |                    |               |                                     |                  |          |                           |            |     |                                 |  |
|  | F-3            |                    |               |                                     |                  | ·        |                           |            |     |                                 |  |
|  | F-4            |                    |               |                                     |                  |          |                           |            |     |                                 |  |
|  | F-5            |                    | •             |                                     |                  |          |                           |            |     |                                 |  |
| ОТН  | IER ART        | (Including Auth    | or, Title, Da | te, Pertinent Pages                 | s, Etc.)         |          |                           |            |     |                                 |  |
|  | OT-1           | <del></del>        | · ·           |                                     |                  |          |                           |            |     |                                 |  |
|  | OT-2           |                    |               | <del></del>                         |                  |          |                           |            |     |                                 |  |

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.

Examiner

OT-3

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Date Considered

| U.S. Department of Commerce, Patent and Trademark Office |   |                             |                | Docket No.:                          |                            |                                    | Serial No.:       |             |           |                            |  |  |
|--|---|-----------------------------|----------------|--------------------------------------|----------------------------|------------------------------------|-------------------|-------------|-----------|----------------------------|--|--|
|  |   |                             |                | 6353/P1/DSM/LOW K/JW                 |                            |                                    | 10/759,801        |             |           |                            |  |  |
| LIST OF  | LIST OF RELEVANT ART CITED BY APPLICANT |                             |                |                                      | Applicants:                |                                    |                   |             |           |                            |  |  |
|  | (Use several sheets if necessary)       |                             |                |                                      |                            | Howard Li, et al                   |                   |             |           |                            |  |  |
|  |   |                             |                |                                      | Filing Date:               |                                    |                   | Group:      |           |                            |  |  |
|  |   |                             |                |                                      | Jan                        | uary 16, 2004                      |                   |             |           |                            |  |  |
| U.S. Pa  | atent Doc                               | uments                      |                |                                      |                            |                                    |                   |             |           |                            |  |  |
| *Examiner<br>Initial                                     |   | Document<br>Number          | Issue<br>Date  | Name                                 |                            | Class                              |                   | Subclass    |           | Filing Date If Appropriate |  |  |
|  | US-12 6,625,49                          |                             | 09/23/03       | Fairbairn et al.                     |                            | Ciass                              |                   | Subclass    | Аррі      | Appropriate                |  |  |
|  | US-13                                   | 6,625,514 B1                | 09/23/03       | Lensing                              |                            |                                    |                   | <del></del> |           |                            |  |  |
|  | US-14                                   | 0,020,011 21                |                | Zensing                              |                            |                                    | -                 |             |           |                            |  |  |
|  | US-15                                   |                             |                |                                      |                            |                                    | $\dashv$          |             |           | •                          |  |  |
| <del></del>  | US-16                                   |                             |                |                                      |                            |                                    |                   |             |           |                            |  |  |
|  | US-17                                   |                             |                |                                      |                            |                                    |                   |             |           |                            |  |  |
|  | US-18                                   |                             |                |                                      |                            |                                    |                   |             |           |                            |  |  |
|  | US-19                                   |                             |                |                                      |                            |                                    |                   |             |           |                            |  |  |
|  | US-20                                   |                             |                | . ,                                  |                            |                                    |                   |             |           |                            |  |  |
|  | US-21                                   |                             |                |                                      |                            |                                    |                   |             |           |                            |  |  |
|  | US-22                                   |                             |                |                                      |                            |                                    |                   |             |           |                            |  |  |
| Foreigr<br>Transla                                       |   | Ocuments                    |                |                                      |                            |                                    |                   |             |           |                            |  |  |
|  |   | Document<br>Number Date Cou |                | Counti                               | ту                         | Class                              | Subclass          |             | Yes       | No                         |  |  |
|  | F-6                                     |                             |                |                                      |                            |                                    |                   |             |           |                            |  |  |
|  | F-7                                     |                             |                |                                      |                            |                                    |                   |             |           |                            |  |  |
|  | F-8                                     |                             |                |                                      |                            |                                    |                   |             |           |                            |  |  |
|  | F-9                                     |                             |                |                                      |                            |                                    |                   |             |           |                            |  |  |
|  | F-10                                    |                             |                |                                      |                            |                                    |                   |             |           |                            |  |  |
| ОТНЕ   | R ART (I                                | ncluding Autho              | r, Title, Date | e, Pertinent Pages,                  | Etc.)                      |                                    |                   |             |           |                            |  |  |
|  | OT-4                                    |                             |                |                                      |                            | ,                                  |                   |             | ···       |                            |  |  |
|  | OT-5                                    |                             |                |                                      |                            |                                    |                   |             |           |                            |  |  |
|  | OT-6                                    |                             |                |                                      |                            |                                    |                   |             |           |                            |  |  |
| Examiner   | xaminer                                 |                             |                | Date Considered                      |                            |                                    |                   |             |           |                            |  |  |
| 'EXAMINER:<br>not in conforma                            | Initial if note and n                   | reference considered.       | dered, wheth   | er or not citation of this form with | is in conforn<br>your comm | nance with MPI<br>nunication to ap | EP 609<br>plicant | ; Draw lin  | e through | citation if                |  |  |

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